

PATENT

Serial No. 09/730,679

Amendment in Reply to Office Action of September 1, 2005

IN THE CLAIMS

Please amend claims 1-2, 4-5, 10 and 15, and add claims 21-22 as follows:

1. (Currently Amended) A transmission system comprising at least a station of a first type and a station of a second type which include a transmitting part having a transmit timing controller for transmitting data at a transmit timing and a receiving part having synchronizing circuits for synchronization with data transmitted from different stations types to provide a receive timing, characterized in that the transmit timing is fixed in response to the receive timing and in that the receiving part of the station of the second type has a synchronization circuit that provides chip fractions shifted in time that are used to modify frequencies of data received from the first station type to compensate for a frequency shift due to a movement of said station of said second type.

2. (Currently Amended) A transmission system as claimed in

PATENT

Serial No. 09/730,679

Amendment in Reply to Office Action of September 1, 2005

Claim 1, formed by a station of the first type where the receiving part comprising a synchronizing circuit for determining the receiving timing of a plurality of stations of the second type, characterized in that the synchronizing circuit of the station of the first type is ~~compatible to~~ interoperable with all the stations of the second type.

3. (Previously Presented) A transmission system as claimed in Claim 1 characterized in that the stations of the second type comprise means for evaluating a frequency shift, of the receiving frequency relative to the transmitting frequency of the station of the first type and means for modifying the transmitting frequency of the station of the second type as a function of this frequency deviation.

4. (Currently Amended) A transmission system comprising at least a station of a first type and a station of a second type which include a transmitting part having a transmit timing controller for transmitting data at a transmit timing and a

PATENT

Serial No. 09/730,679

Amendment in Reply to Office Action of September 1, 2005

receiving part having synchronizing circuits for synchronization with data transmitted from different stations ~~types~~ to provide a receive timing, characterized in that the receiving part of the station of the second type has a synchronization circuit that provide chip fractions shifted in time that are used to modify frequencies of data received from the station of the first station type to compensate for a frequency shift due to a movement of the station of the second type, and the station of the first type comprises a receiving circuit to be shared by all the stations of the second type to which it is connected.

5. (Currently Amended) A synchronization method suitable for a system comprising at least a station of a first type and a station of a second type which include a transmitting part having a transmit timing controller for transmitting data at a transmit timing and a receiving part having synchronizing circuits for synchronization with data transmitted from ~~different stations types~~ to provide a receive timing, characterized in that it comprises the following steps:

PATENT

Serial No. 09/730,679

Amendment in Reply to Office Action of September 1, 2005

- providing the receiving part of the station of the second type with a synchronization circuit that generates chip fractions shifted in time,

- measuring ~~the~~ a receive clock derivation deviation made at the stations of the second type, and

- adjusting ~~the~~ a transmit clock at the station of the second type by adopting the opposite deviation value to compensate for a frequency shift due to a movement of the station of the second type,

~~\_\_\_\_\_synchronization of the receive clock at the station of the first type.~~

6. (Previously Presented) A transmission system as claimed in Claim 1, wherein the synchronization circuit provides chip fractions shifted in time produces a first output corresponding to a satisfactory state of synchronism.

7. (Previously Presented) A transmission system as claimed in Claim 6, wherein the synchronization circuit provides chip

PATENT  
Serial No. 09/730,679  
Amendment in Reply to Office Action of September 1, 2005

fractions shifted in time produces an already produced chip :  
fraction output that contains chip fraction previously produced at  
the first output.

8. (Previously Presented) A transmission system as claimed in  
Claim 7, wherein the synchronization circuit provides chip  
fractions shifted in time produces a recently produced chip  
fraction output that contains chip fraction that have just been  
produced.

9. (Previously Presented) A transmission system as claimed in  
Claim 8, wherein the receiving part of the station of the second  
type further comprises an analysis circuit that receives chip  
fractions shifted in time by the synchronization circuit and  
determines the frequency drift, therefrom.

10. (Currently Amended) A transmission system as claimed in  
Claim 9, wherein the receiving part of the station of the second  
type further comprises means for modifying said transmit clock

PATENT

Serial No. 09/730,679

Amendment in Reply to Office Action of September 1, 2005

~~frequencies~~ in response to the frequency drift.

11. (previously presented) A transmission system as claimed in Claim 4, wherein the synchronization circuit provides chip fractions shifted in time produces a first output corresponding to a satisfactory state of synchronism.

12. (Previously Presented) A transmission system as claimed in Claim 11, wherein the synchronization circuit provides chip fractions shifted in time produces an already produced chip fraction output that contains chip fraction previously produced at the first output.

13. (Previously Presented) A transmission system as claimed in Claim 12, wherein the synchronization circuit provides chip fractions shifted in time produces a recently produced chip fraction output that contains chip fraction that have just been produced.

PATENT  
Serial No. 09/730,679

Amendment in Reply to Office Action of September 1, 2005

14. (Previously Presented) A transmission system as claimed in Claim 13, wherein the receiving part of the station of the second type further comprises an analysis circuit receives chip fractions shifted in time by the synchronization circuit and determines a frequency drift, therefrom.

15. (Currently Amended) A transmission system as claimed in Claim 14, wherein the receiving part of the station of the second type further comprises means for modifying said transmit clock frequencies in response to the frequency drift.

16. (Previously Presented) A method as claimed in Claim 5, wherein the synchronization circuit provides chip fractions shifted in time produces a first output corresponding to a satisfactory state of synchronism.

17. (Previously Presented) A method as claimed in Claim 16, wherein the synchronization circuit provides chip fractions shifted in time produces an already produced chip fraction output that

PATENT  
Serial No. 09/730,679  
Amendment in Reply to Office Action of September 1, 2005

contains chip fraction previously produced at the first output.

18. (Previously Presented) A method as claimed in Claim 17, wherein the synchronization circuit provides chip fractions shifted in time produces a recently produced chip fraction output that contains chip fraction that have just been produced.

19. (Previously Presented) A method as claimed in Claim 18, wherein the receiving part of the station of the second type further comprises an analysis circuit receives chip fractions shifted in time by the synchronization circuit and determines a frequency drift, therefrom.

20. (Previously Presented) A method as claimed in Claim 19, wherein the receiving part of the station of the second type further comprises means for modifying clock frequencies in response to the frequency drift.

21. (New) A mobile communication terminal comprising:



PATENT

Serial No. 09/730,679

Amendment in Reply to Office Action of September 1, 2005

a receiver configured to receive a receive signal from a further terminal which transmits said receive signal at a frequency  $f$ ; said receive signal being received at a shifted frequency shifted in one direction by a frequency change  $\Delta f$  due to a movement of said mobile communication terminal;

a transmitter configured to transmit a transmit signal having a transmit frequency shifted to compensate for said frequency change  $\Delta f$ , said transmit frequency shifted being shifted in an opposite direction to said one direction by said frequency change  $\Delta f$ .

22. (New) A transmission system comprising the mobile communication terminal of claim 21.